

**TESTIMONY OF THE
DEPARTMENT OF INLAND FISHERIES AND WILDLIFE
BEFORE THE JOINT STANDING COMMITTEE ON INLAND
FISHERIES AND WILDLIFE
IN OPPOSITION TO
L.D. 134**

“Resolve, To Study the Impact of Winter Ticks on the State’s Moose Population”

SPONSORED BY: Representative MARTIN of Sinclair

CO-SPONSORED BY: Senator EDGECOMB of Aroostook
Representative MARTIN of Eagle Lake

DATE OF HEARING: February 24, 2015

Good afternoon Senator Davis, Representative Shaw and members of the Inland Fisheries and Wildlife Committee. I am Judy Camuso, Wildlife Division Director at the Department of Inland Fisheries and Wildlife, speaking on behalf of the Department, in opposition to **L.D 134**.

L.D. 134 is a resolve asking the Department to study and report its findings on the winter tick impact to Maine’s moose population. The Department has been and is currently studying the impact of winter ticks on moose in Maine and we report those findings annually. We would like to explain a bit about ticks in relation to moose and what the Department is currently doing for research in this area.

Winter ticks are a one host tick that spends all of their life stages (larvae, nymph and adult) on one animal. In a winter with heavy tick infestations an animal can host tens of thousands of these ticks which can have a significant effect on body condition and overall health.

Moose mortality other than legal kill has been examined by IFW staff since at least the 1960’s and over time data collection has been refined to provide better assessment of mortality factors. Beginning in 1992, IFW staff reported occurrences of winter tick (tick loads/hair loss) on moose found dead or otherwise handled. In 2005, IFW developed a protocol to count winter ticks on hunter harvested moose at check stations. This protocol established an index to the relative abundance of winter tick on moose annually. To date we have examined over 1,100 harvested moose. We are collaborating with New Hampshire to understand winter tick dynamics and effects on moose so that we can

develop predictive models for severe tick years and how they will impact annual mortality.

In 2014, working collaboratively with New Hampshire Fish and Game, University of Maine Animal Health Lab and the University of New Hampshire we initiated an adult cow and calf survival project to quantify annual losses. Part of this work includes assessing and identifying moose mortality factors that occur outside of legal hunter harvest. This assessment is in addition to IFW's normal assessment of the annual, legal moose harvest. Since winter tick numbers rise and fall it is critical to measure and assess moose mortality over time (a minimum of 5 years) to look at annual changes. Various factors such as length of winter, snow depths, temperatures, wind speed, moose densities, and alternate hosts all play a role in determining the severity of a winter tick infestation. IFW continues to evaluate incorporating a 2nd study area to quantify differences across the geographical range of moose within the state.

Through the survival study we are examining a number of physiological parameters to assess moose health, establish "normal" values for moose in the northeast and determine additional mortality factors (i.e., internal/external parasites, bacterial/viral pathogens). While winter tick appears to be a significant factor in moose mortality there are other associated internal parasites including (*round worm, tape worm and meningeal worm (brainworm)*) that afflict moose and may have ramifications for survival. Only through a comprehensive study like the one currently being conducted can we systematically understand and quantify various vectors that affect moose health and thus annual and long term survival.

Lee Kantar will be available on the date of the work session to answer any questions and will also be presenting the Annual Moose Management Report.